

connector and being lifted off the hooks of the upper housing for simple replacement. In the alternative, the entire luminaire can be quickly and easily replaced simply by twisting off the old luminaire and twisting on a new one. The luminaire of the present invention also provides power plugs capable of being adapted to all presently available international voltages and a fool-proof keying system to allow only corresponding voltage luminaires to be coupled to the mast mount docking station.

Various changes to the foregoing described and shown structures would now be evident to those skilled in the art. Accordingly, the particularly disclosed scope of the invention is set forth in the following claims.

What is claimed is:

1. A luminaire for mounting to a pole which comprises:

a mast mount docking station including a clamp for attaching to the pole at one end of the docking station and a keyed coupling means at an opposite end of the docking station;

an electrical plug connector disposed in the coupling means end of the docking station;

a luminaire including a mating electrical plug connector for electrically connecting the mast mount docking station to the luminaire, the luminaire further including a connection end having keyways therein such that the luminaire is removably mechanically and electrically coupled to the mast mount docking station by a twist-lock mating between the mating electrical plug connectors and keyed coupling means of the mast mount docking station and the keyways in the connection end of the luminaire.

2. A luminaire as defined by claim 1, wherein the mast mount docking station comprises an upper mast assembly and a lower mast assembly, one of the upper mast assembly and lower mast assembly including the clamp for attaching the docking station to the pole, the upper mast assembly being removably secured to the lower mast assembly to thereby secure the electrical plug connector therein.

3. A luminaire as defined by claim 1, wherein the mast mount docking station includes a series of inclined steps at the mast mounting end to allow angles of tilt for leveling the luminaire.

4. A luminaire as defined by claim 1, wherein the luminaire is twist-lock coupled to the mast mount docking station by about a 15° to about a 30° rotational movement of the luminaire with respect to the docking station.

5. A luminaire as defined by claim 1, wherein the electrical connector of the docking station receives power conductors which exit the pole, the electrical connector being provided with a series of crenulations, such that each crenulation is identified with a different voltage rating to accommodate all international voltages.

6. A luminaire for mounting to a pole, comprising:

a mast mount docking station having a pole connection end including means for attaching the docking station to the pole and a coupling means at an opposite end of the docking station; and

a luminaire including a connection end having mating coupling means with the docking station coupling means such that the luminaire is removably coupled to the mast mount docking station by a twist-lock mating between the respective coupling means; wherein the pole connection end of the mast mount docking station

includes an opening for receiving the pole having a plurality of removable knock-outs therearound for enlarging the opening to accommodate mast diameters of varying sizes.

7. A luminaire for mounting to a pole, comprising:

a mast mount docking station having a pole connection end including a means for attaching the docking station to the pole and a coupling means at an opposite end of the docking station; and

a luminaire including a connection end having mating coupling means with the docking station coupling means such that the luminaire is removably coupled to the docking station by a twist-lock mating therebetween, wherein the luminaire further includes a molded photoelectric control receptacle extending above a top portion of the luminaire and a molded electronics compartment extending below a bottom portion of the luminaire to provide hand holds to perform the twist-lock mounting of the luminaire to the docking station.

8. A method of installing or removing a roadway luminaire, the luminaire including a mast mount docking station for attachment to a pole mast, the luminaire and docking station including mating twist-lock connectors, the luminaire and mast mount docking station further including mating power plug connectors, the method comprising the step of:

twisting the luminaire with respect to the docking station to thereby mechanically and electrically connect and/or disconnect the mating twist-lock connectors and the mating power plug connectors.

9. A method as defined by claim 8, wherein the step of twisting the luminaire is accomplished in less than a quarter-turn.

10. A roadway luminaire comprising:

a mast mount docking station having a pole connection end including means for attaching the docking station to the pole and a coupling means at an opposite end thereof;

a first plug connector having fixed contacts coupled to a power supply, the first plug connector being positioned at the coupling means end of the docking station;

a lamp assembly including a housing having a mating connection end and a central cavity enclosing an illuminating lamp electrically connected to ballast circuitry, the mating connection end further including a second plug connector having fixed contacts electrically coupled to the ballast circuitry, wherein upon twist-locking the mating connection end of the lamp assembly housing to the docking station, the lamp assembly is removably mechanically coupled and the fixed contacts of the first plug connector interengage with the fixed contacts of the second plug connector to provide power to the illuminating lamp.

11. A roadway luminaire as defined in claim 10, wherein the fixed contacts of one of the first and second plug connectors are blade-type contacts which are received in mating blade receiving socket contacts.

12. A roadway luminaire as defined in claim 10, wherein the docking station attaching means is a slip-fitter clamp.

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